

**Abstract of the disclosure**

The present invention relates to a bus station (14; 15; 23) such as a sensor (14), an actuator (15) or a gateway (23) fulfilling, apart from their primary device immanent function, a secondary function, namely a bus monitor function. In order to be able to fulfil said secondary function, the bus stations (14; 15; 23) are each equipped with a bus monitor means (30) which makes it possible to access, to detect and to further process the telegram traffic carried on the bus system (5; 40). The invention also relates to a network equipped with such bus stations (14; 15; 23) and a method for carrying out such monitoring with the aid of said bus stations (14; 15; 23).

(Fig. 7)